

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/017542

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ C12Q1/68, C12N15/09

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ C12Q1/00-70, C12N15/00-90

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
JICST FILE (JOIS), PubMed/BIOSIS/WPI (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	X.Chen et al., Telomerase RNA as a Detection Marker in Serum of Breast Cancer Patients, Clinical Cancer Research, 2000, 6, pages 3823 to 3826	1
X	N. Funaki et al., QUANTITATIVE ANALYSIS OF ALPHA-FETOPROTEIN mRNA IN CIRCULATING PERIPHERAL BLOOD OF PATIENTS WITH HEPATOCELLULAR AND ALPHA-FETPROTEIN-PRODUCING GASTRIC CARCINOMAS, Life Science, 1998, 62(21), pages 1973 to 1984	2
X	Shin TAKEDA et al., "Gan no Bunshi Shindangaku - Kokomade Susunda Shindan Chiryo eno Oyo - 5. Kangan ni okeru Idenshi Shindan no Genjo", Nichigai Kaishi, 2002, 103(6), pages 472 to 475	2

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier application or patent but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search
07 February, 2005 (07.02.05)

Date of mailing of the international search report
22 February, 2005 (22.02.05)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	S.Kyo et al., HUMAN TELOMERASE REVERSE TRANSCRIPTASE AS A CRITICAL DETERMINANT OF TELOMERASE ACTIVITY IN NORMAL AND MALIGNANT ENDOMETRIAL TISSUES, Int.J.Cancer, 1999, 80, pages 60 to 63	1
A	M.Takakura et al., Expression of Human Telomerase Subunits and Correlation with Telomerase Activity in Cervical Cancer, CANCER RESEARCH, 1998, 58, pages 1558 to 1561	1

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1 and 2, specifically parts thereof
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 1 and 2 pertain to diagnostic methods to be practiced on the human body and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
2. ☒ Claims Nos.: 1 and 2, specifically parts thereof
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Whether the invention of claims 1 and 2 is directed to a method of detecting cancer or method of diagnosing cancer from a blood sample in accordance with the RT-PCR method is unclear. With respect to the unclear description, search has been carried out interpreting it as meaning the "method of detecting cancer".
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The technical matter common to claim 1 and claim 2 is a method of detecting a tumor marker gene through performing of RT-PCR with respect to an RNA sample obtained from a body fluid. However, this common matter is publicly known as described in, for example, the following literature. Therefore, claim 1 and claim 2 cannot be stated as sharing a special technical feature, so that this invention group cannot be stated as being a group of inventions linked with each other so as to form a single general inventive concept.

Clinical Cancer Research. 2000 Oct;6:3823-3826.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

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Claims 1 and 2

Whether the invention of these claims is directed to a method of detecting cancer or method of diagnosing cancer from a blood sample in accordance with the RT-PCR method is unclear.

With respect to the unclear description, search has been carried out interpreting it as meaning the "method of detecting cancer".